



Odonata Central 2020


User Guide

Click on a Chapter to go to that Chapter

Table of Contents

1. [Overview](#)
2. [Entering New Records](#)
3. [Browsing and Editing Records](#)
4. [Mapping Records](#)
5. [Species Lists](#)
6. [Filter Settings](#)
7. [Vetting Process](#)
8. [Importing iNaturalist Records](#)

1. Overview

Odonata Central was designed with a contemporary user interface that should be self-explanatory. Information icons  are available throughout for various features that may require some more explanation.

The guide is available if you prefer a step-by-step description of the various functions of Odonata Central.

If you have a specific question, see the Frequently Asked Questions (FAQ) page first.

These are the main things you can do on the Odonata Central Website:

ADD RECORDS: You can add your own Odonata observations to the database of records so you can keep track of them and so others can see them. Records can be Photo Records, Specimen Records or Observed Only records. By adding records, your observations are helping to increase our understanding of Odonate distribution and abundance. Records of all species are welcome, including common species.

BROWSE RECORDS: The Odonata Central Database currently contains over a quarter of a million observations. You can search these records for a particular species or particular locations. Find the exact records you want with powerful filter settings.

MAP RECORDS: Produce a variety of different map types of the specific records you want to see by setting the powerful filters. Zoom in or out to see the maps at different levels.

SPECIES LISTS: Produce a list of species for any location and date based on the records in the database. List includes early and late flight dates for all species listed.

MY SPECIES LISTS: Found under the MY OC tab, this function allows you to see your lists and list totals for any location or date. Great for managing life lists, year list, county lists, etc.



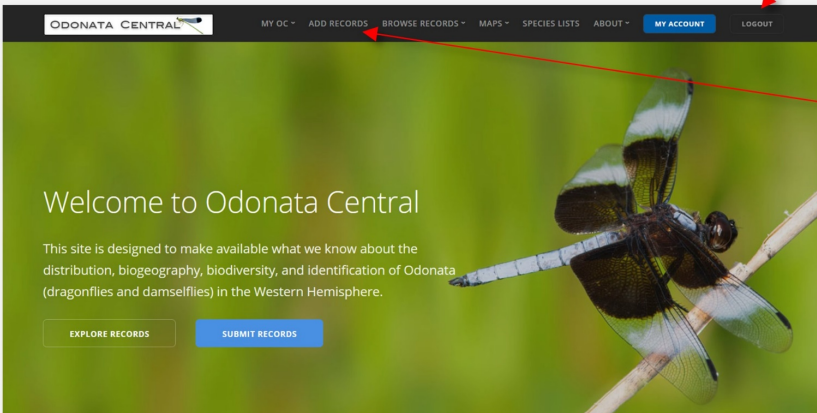
2. Entering New Records

Overview:

- You must be registered and logged in.
- You enter new records on a checklist in a two-step process by clicking the ADD RECORDS tab.
- Step 1: You enter the date and location that applies to the entire checklist.
- Step 2: You enter your sightings onto a checklist.
- A checklist can be all the species you observed (preferred) or as short as a report of a single species.
- You can enter species that you photographed, collected or only observed.
- You record (or check off) a species on the checklist by entering a number (either exact or estimate) into the Count column. If no count is available, enter an "X" to record the species.

The following annotated screen shots walk you through the process and explain the options.

Begin by clicking ADD RECORDS from the top menu



The screenshot shows the Odonata Central website. The top navigation bar includes links for MY OC, ADD RECORDS, BROWSE RECORDS, MAPS, SPECIES LISTS, ABOUT, MY ACCOUNT, and LOGOUT. The main content area features a large image of a dragonfly on a branch, with the text 'Welcome to Odonata Central' and a brief description of the site's purpose. Two buttons are visible: 'EXPLORE RECORDS' and 'SUBMIT RECORDS'. Annotations with red arrows point to the 'ADD RECORDS' link in the top menu and the 'SUBMIT RECORDS' button.

You need to register and be logged in to be able to enter records

LOGOUT and MY ACCOUNT buttons indicate you are logged in

Begin by clicking ADD RECORDS

Enter date, location and checklist details from this screen

1. Enter date. See note about entering historical dates.
2. Enter location by selecting saved location from a list
- OR
2. Open a map to enter location by dropping a pin (see next slide)
3. Check if you will report all the species you observed (encouraged).
4. Check if you are reporting a species observed by someone else. A box will appear for you to optionally enter their name.
5. Make this checklist private if desired (not encouraged).

6. Click to begin entering records after you have 1) entered date and 2) a location either from the favorite list or by picking a location from the map

Use this screen to ADD LOCATION from a map

1. Search for a location
- OR
1. Center on and zoom in to your current location
2. After zooming in far enough, click on the map at the location of your observations. Coordinates will be entered automatically.
3. Location Name and Location Description are both required fields
4. Save this location to your list of favorites if desired so you can pick it from the list next time.
5. Add a private property warning to the records in this checklist if you want people to know that the location is not open to the public.

6. Save this location and return to previous screen

Overview of Data Entry

Editing Checklist - 12/01/2019 @ Central Park West SAVE SAVE & EXIT CANCEL

Add Sightings Import Record from Naturalist

Add Species

OR add from local species list

Local Species Count ID Confidence Collapse All Expand All

| Aeshnidae (Darners) | | | |
|---|----------------------|--|--|
| <i>Aeshna canadensis</i> (Canada Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna constricta</i> (Lance-tipped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna tuberculifera</i> (Black-tipped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna umbrasa</i> (Shadow Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |

This screen appears after you click on the button "Click to begin entering records"

The basic process is to first check off species you are reporting on the list by adding a count or an "X" to the Count Column.

Adding a number or an "X" to the count column records that species and activates the "Photos & Details" button which allows you to add more information.

Use the "Add Species" button to add species not listed or to add records of multiple life stages.

Local Species Count ID Confidence Collapse All Expand All

| Aeshnidae (Darners) | | | |
|---|----------------------|--|--|
| <i>Aeshna canadensis</i> (Canada Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna constricta</i> (Lance-tipped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna tuberculifera</i> (Black-tipped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna umbrasa</i> (Shadow Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna verticalis</i> (Green-striped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Anax junius</i> (Common Green Darner) | 12 | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | Photos & Details X |
| <i>Anax longipes</i> (Comet Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Basiaeschna janata</i> (Springtime Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Boyeria grajiana</i> (Ocellated Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Boyeria vinosa</i> (Swamp Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |

Fill out checklist with individual records on this screen

Editing Checklist - 12/01/2019 @ Central Park West SAVE SAVE & EXIT CANCEL

Add Sightings Import Record from Naturalist

Add Species

OR add from local species list

Local Species Count ID Confidence Collapse All Expand All

| Aeshnidae (Darners) | | | |
|---|----------------------|--|--|
| <i>Aeshna canadensis</i> (Canada Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna constricta</i> (Lance-tipped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna tuberculifera</i> (Black-tipped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna umbrasa</i> (Shadow Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |

1. Click pencil icon to change previously entered date and location information if necessary

2. A list is displayed of all species previously reported near your location. No list is available if there are no records in the area.

3. For species on the list, you create a record by entering a number into the Count column. We prefer either an exact or an estimated count. If no count is available, just enter an "X". (See below to add species not on the list.)

Indicate your confidence in the ID. High means you are certain of the ID. Report confidence of the best seen individual of each species. This is very important information so please try to accurately report your confidence.

Local Species Count ID Confidence Collapse All Expand All

| Aeshnidae (Darners) | | | |
|---|----------------------|--|--|
| <i>Aeshna canadensis</i> (Canada Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna constricta</i> (Lance-tipped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna tuberculifera</i> (Black-tipped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna umbrasa</i> (Shadow Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Aeshna verticalis</i> (Green-striped Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Anax junius</i> (Common Green Darner) | 12 | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | Photos & Details X |
| <i>Anax longipes</i> (Comet Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Basiaeschna janata</i> (Springtime Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Boyeria grajiana</i> (Ocellated Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |
| <i>Boyeria vinosa</i> (Swamp Darner) | <input type="text"/> | High <input checked="" type="radio"/> Medium <input type="radio"/> Low <input type="radio"/> | |

Once you add a count (or an X), the Photos and Details button appears. Click this button to expand this record and add or view photos and details (see next)

Add photos and details to a record after clicking the Photos and Details button

Indicate life stage you are reporting

If you collected a specimen, you MUST check this box

If you collected a specimen, you MUST indicate where it is. Enter "Personal Collection" if you retain the specimen

Use this for any additional notes. For difficult IDs, it is especially helpful to indicate the features that led you to the ID.

Include any photos you have, even for common species and for specimens. Use drag and drop or select them here. You can add up to 10 files of up to 10 Mb each.

Use the **X** to delete a record from the checklist

Unusual records are automatically selected for vetting. You can check this box to guarantee an expert vetter looks at your record, but we encourage you to trust the automatic sorting.

Manual entry of a species name

Click here to add a species to the list manually.

Once you click the Add Species button, this dialog appears. Type either the Common or Scientific Name of the species you want to add and pick it from the list that appears.

Enter a count or the letter "X" here and the Photos and Details button appears. Proceed as above.

NOTES:

- 1) Manual entry is most useful for species not on the list, but you can use it for species on this list if you prefer.
- 2) You can use manual entry to add more than one record of the same species when you have records of more than one life stage.

Save your checklist

Editing Checklist - 12/01/2019 @ Cape May

SAVE SAVE & EXIT CANCEL

Add Sightings

Import from previous date/location

Added Species Count ID Confidence Collapse All Expand All

OR add from local species list

Local Species Count ID Confidence Collapse All Expand All

Aeshnidae (Damers)

| | | | | | |
|--|----|------|--------|-----|------------------|
| <i>Aeshna umbrosa</i> (Shadow Darner) | | High | Medium | Low | |
| <i>Anax junus</i> (Common Green Darner) | 11 | High | Medium | Low | Photos & Details |
| <i>Anax longipes</i> (Carnet Darner) | 2 | High | Medium | Low | Photos & Details |
| <i>Baetiscaenia janata</i> (Springtime Darner) | X | High | Medium | Low | Hide Details |

Life stage: Adult Exuviae Nymph

Specimen (must be checked for specimen records)

Institution

Personal Collection

Notes

Submit Photos (Please ensure all photos are tightly cropped):

File Uploaded

Select File(s)

Request expert vetting of this record

Boyeria vinosa (Fawn Darner) High Medium Low

Epiaeschna heros (Swamp Darner) High Medium Low

Gomphaeschna antilope (Taper-tailed Darner) High Medium Low

Gomphaeschna fuscillata (Harlequin Darner) 1 High Medium Low Photos & Details

Nasiaeschna pentacantha (Cyano Darner) High Medium Low

Rhionaeschna multicolor (Blue-eyed Darner) 1 High Medium Low Photos & Details

Cardulopodidae (Spiketail)

Cardulegaster diastrops (Delta-spotted Spiketail) High Medium Low

Cardulegaster maculata (Twin-spotted Spiketail) 2 High Medium Low Photos & Details

Cardulidae (Emeralds)

Drepanosticta felderi (Dusky Emerald)

An example of a completed checklist.

Once all observations for this date and location are entered on the checklist, click to Save and Exit.

Checklists and Records can be edited by accessing them under the My OC tab in the main menu.

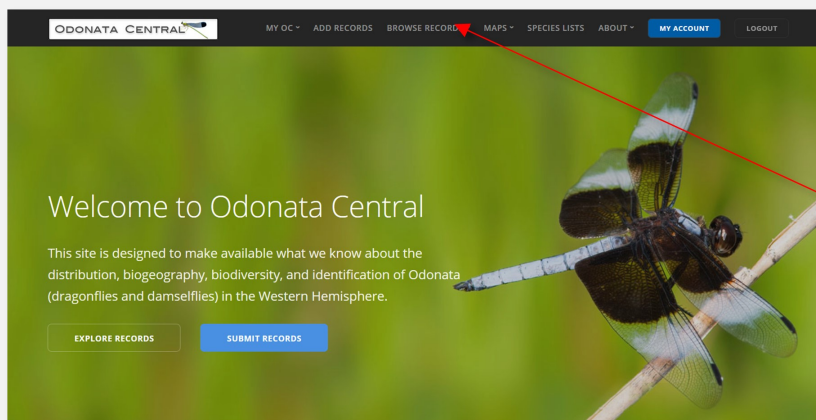


3. Browsing and Editing Records

Overview:

- Begin by clicking the BROWSE RECORDS tab.
- Select either all records or the subset of records you wish to view.
- A list of all Odonata Central records is displayed with the most recent records at the top.
- View the details of the record by clicking the Details button.
- Apply filters to select only the records you want.
- You can see these records on a map by clicking the Map these results button.

Begin by clicking BROWSE RECORDS from the top menu

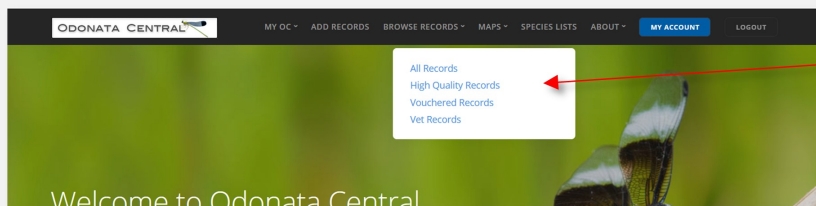


You do not need to be registered or logged in to be able to browse records

1. Begin by clicking BROWSE RECORDS

2. This submenu appears. Choose the type of data to begin browsing:
All Records – all user submitted records, but initially excludes Dot Map Records (see FAQ)
High Quality – excludes certain records that are less likely to be correct
Vouchered – only includes Photo and Specimen records
Vet Records – only shows for vetters, shows Pending records for vetter to review

These options can always be changed by changing Filter settings later



Main list records screen

1. Shows filters that have been set. Dot Map Data are excluded by default as are Declined records.

2. Changes the filter settings. See chapter on Filters.

3. Shows the displayed records on a map.

4. Click on column heading to sort by that column. Initially sorted by date observed, newest first.

5. Click details to see details about the record (see below)

Details screen

By clicking Details on the previous screen you have opened a stack of all the records listed.

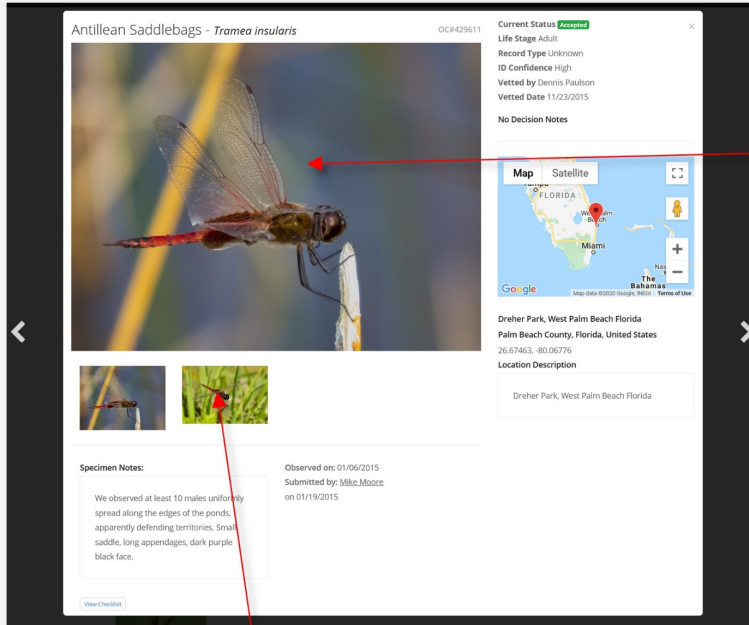
Click this X and you will close the stack and go back to list view.

These scroll arrows allow you to move forward and backward through the selected records in the stack.

This icon will let you view the map full screen.

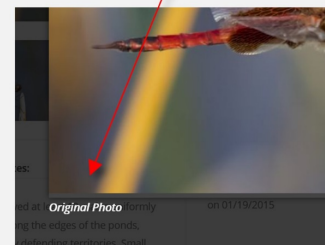
Click here to view the entire checklist with other records submitted. Note that all checklists submitted prior to 2020 only have one record.

Viewing Photos



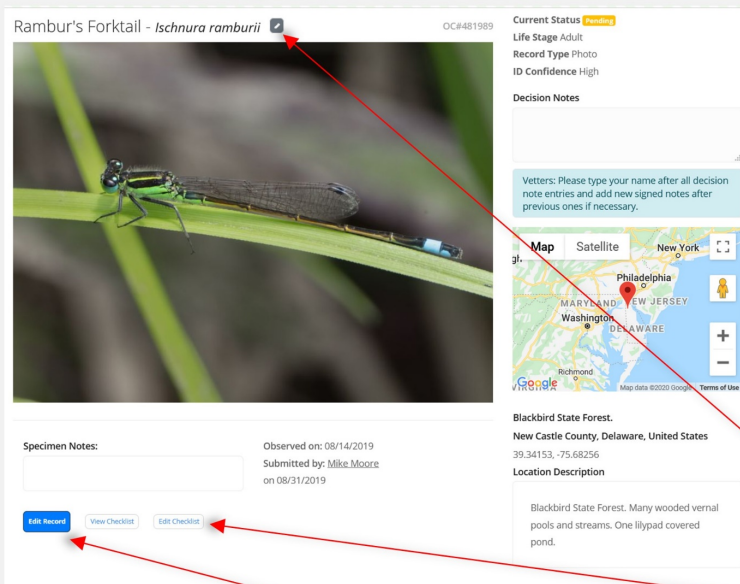
Click the large image to open in a window at 2X this displayed size. (Note that all images submitted prior to 2020 are only available at 800X600 px resolution.)

On the large image opened above, you can click "Original Photo" in the lower left corner of this image to see the image full screen in its submitted resolution.



If more than one image was submitted, click a thumbnail to view it in the larger window

Editing Records



Users who are not vetters can edit records and checklists if the following conditions are met:

1. It is the user's own record AND
2. The status is either Pending or Not Vetted

Once a record has been Accepted or Declined by a vetter, it is locked to editing so the information the decision was based on is not changed.

If you need to edit one of these latter records, you should email the vetter so they can change the status back to Pending.

Click the pencil icon to change the species name.

This button is used to change the date or location of all records in the checklist or to delete individual records.

This button is used to change details of this individual record such as photos, counts, notes, etc.

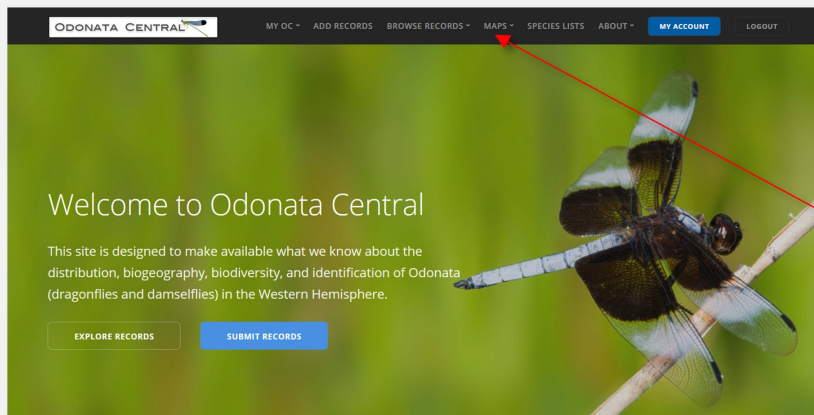
The two editing buttons and the pencil icon should only appear on records you can edit.

4. Mapping Records

Overview:

- You must select a Taxon before viewing a map. This will most often be a species, but you can map higher taxon levels as well, such as “Sympetrum sp.”.
- The map data will load and then the map will be displayed. (Note the “loading spinner” at the bottom of the map that tells you when data are finished loading).
- Select the map background you want to view. Plain, Road, Terrian, Satellite and Hybrid (Road/Satellite) views are available. We suggest Plain map to view the data initially for US records because it shows outlines of Countries, States and US Counties. However, you will have to switch to another map type to zoom in closely. For other regions, Road is a good starting choice.
- You can view different map types. Sighting map is the basic Odonata Central map type. It shows a distribution grid when zoomed out and individual observations when zoomed in.
- You can select other map types which are explained below.
- Use filter settings to map exactly the data you want.
- Click the “List these results” button if you want to see a list of the records that are displayed on your map. In the list view, you can use Map these Results to go back to the map. This makes it convenient to bounce between List and Map views.
- NOTE: Some large data sets can take a long time to load and will be truncated at 10,000 records. Be sure to specify the geographical region you are interested in to minimize this issue.

Begin by clicking MAPS from the top menu



You do not need to be registered or logged in to map records

1. Begin by clicking MAPS

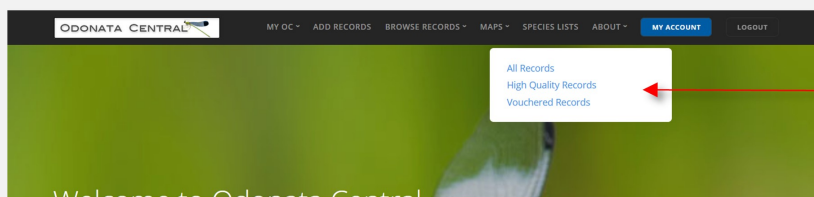
2. This submenu appears. Choose the type of data to map:

All Records – all user submitted records, but initially excludes Dot Map Records (see FAQ)

High Quality – excludes certain records that are less likely to be correct

Vouchered – only includes Photo and Specimen records

These options can always be changed by changing Filter settings later



Initial Maps Filter Settings

Select a taxon and click on "Apply Filtering" to get started

Taxon

Location

Status

Record Type

High Quality Only

Include Declined Records

OC#

User

Exclude Submitted for Others

Exclude Dot Map Project Results

Exclude iNaturalist Results

[more filters](#)

Apply Filtering

In general, map performance is affected by the number of points being plotted. To maximize, performance, always set filters for only the data you want to see.

You cannot produce a map without first entering a taxon in the taxon filter box.

Begin typing a name and a pick list will appear. Select the name you want.

Usually you will plot a species, but you can plot higher taxon levels (e.g. *Libellula* sp. or Bluet sp.) but keep in mind the effect of more points on performance.

Initial Maps Filter Settings

Select a taxon and click on "Apply Filtering" to get started

Taxon

Location

Status

Record Type

High Quality Only

Include Declined Records

OC#

User

Exclude Submitted for Others

Exclude Dot Map Project Results

Exclude iNaturalist Results

[more filters](#)

Apply Filtering

Data from the Dot Map Project (see FAQ) have no dates and no coordinates. They can only be plotted to the county level. Therefore, they can only be shown on either the County Map or the County + Sightings Map type (see below).

You can optionally include data that have been submitted to iNaturalist but not to Odonata Central by turning this switch off. For common species, this can add a lot of data, so again beware of performance issues. Also note some locations in iNaturalist are approximate.

See the section of this guide on Filters to learn about other filter settings. Click this button to produce your map.

Loading Spinner



Whenever a map is being generated this “loading spinner” appears at the bottom of the map. When it disappears your data is loaded. It will appear any time you change filters or views.

Map Legend

A screenshot of a web application interface. At the top, there is a navigation bar with links for MAPS, SPECIES LISTS, ABOUT, LOGIN, and REGISTER. Below this is a map of the Eastern United States. On the right side of the map, there is a control panel. The 'Map Type' section shows 'Sighting Map' selected. Below it is a 'Plain' background map option. A blue button labeled 'Filter Data' is visible. Under 'Applied Filters', 'Taxon(s)' is set to 'Blue Dasher'. There are two filter buttons: 'DOT MAP DATA EXCLUDED' and 'INATURALIST DATA EXCLUDED'. The 'Legend' section shows a green circle for 'Sighting', a green triangle for 'iNaturalist Sighting', and a blue square for 'Contains results (zoom for details)'. At the bottom of the legend is a button labeled 'List these results'.

After your map is produced this box appears in the upper right corner showing your current settings.

This shows how the observations are being plotted on the map. See below for explanation.

This shows the type of background map the observations are shown against. See below for explanation.

Clicking this button allows you to change your filter settings.

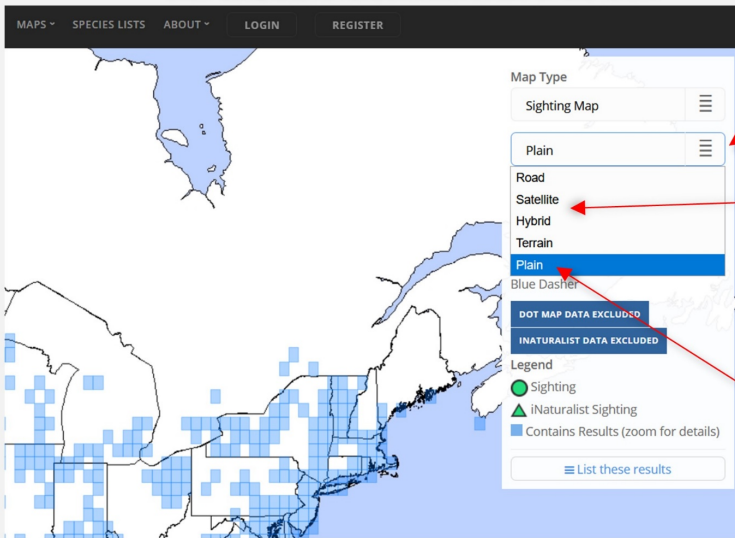
Shows the taxon being plotted. Can be changed by changing filter settings.

Other filters applied shown here. These are the default settings.

The legend is specific to each map type. See below.

If you want to browse a list of the records shown on the map click here. A “Map these results” button on the list view will allow you to return to the map view.

Map Background



If you click on the second box, you can change the type of map background.

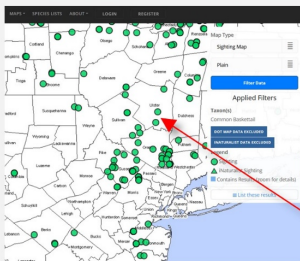
Road, satellite, hybrid and terrain are all standard Google Maps backgrounds that you are probably familiar with.

Plain is developed in-house and is may be the most useful map type.

It is a white background with outlines that vary with zoom level. Plotted observations are very easy to pick out against this plain background.

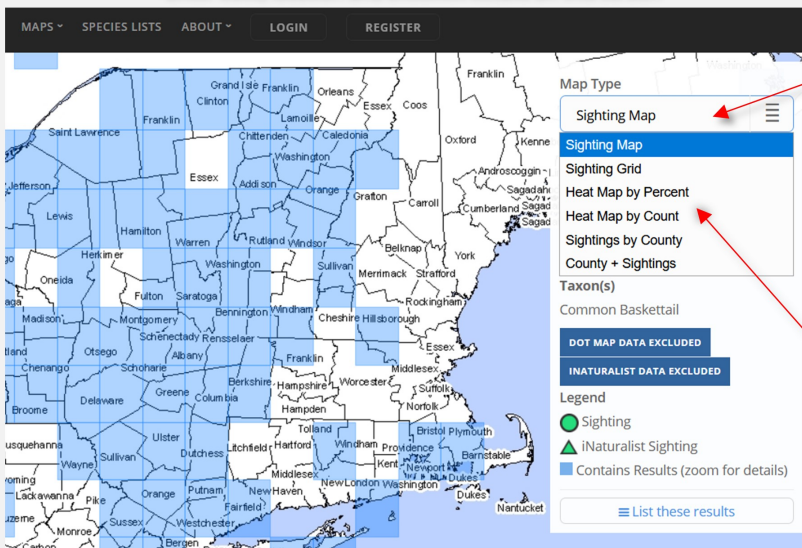
As you zoom in on the US, state outlines appear and as you zoom in further county outlines with county names appear.

A limit on the Plain Map type is that it won't zoom in as far. If you need to zoom in further, switch to one of the Google Maps.



Plain Map zoomed in to show county outlines and names.

Map Types



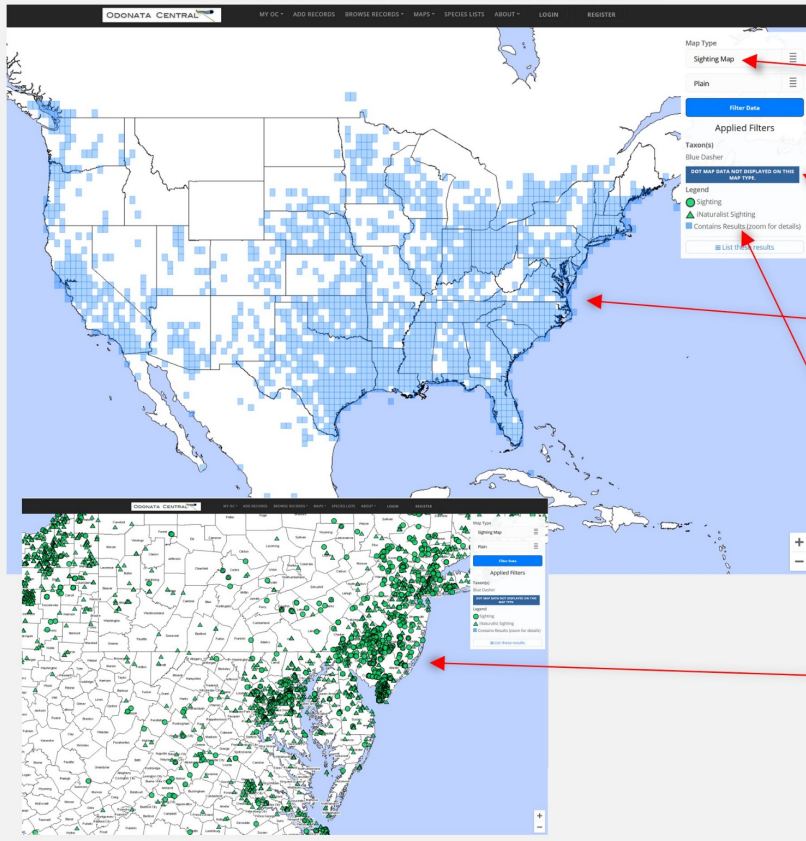
If you click on the first box, you can change the way observations are plotted.

There are six different map types available that show the filtered data in different ways.

1. Sighting Map
2. Sighting Grid Map
3. Heat Map by Percent
4. Heat Map by Count
5. Sightings by County
6. County + Sightings

Select one to see how it changes the way your data look. Each type is explained below.

Sighting Map



A Sighting Map is the basic map type in Odonata Central

Dot Map Data (see FAQ) cannot be displayed on this map type because they lack coordinates

When you are zoomed out, data on this map are displayed on a coordinate grid in which each square is 30 minutes lat-long on a side.

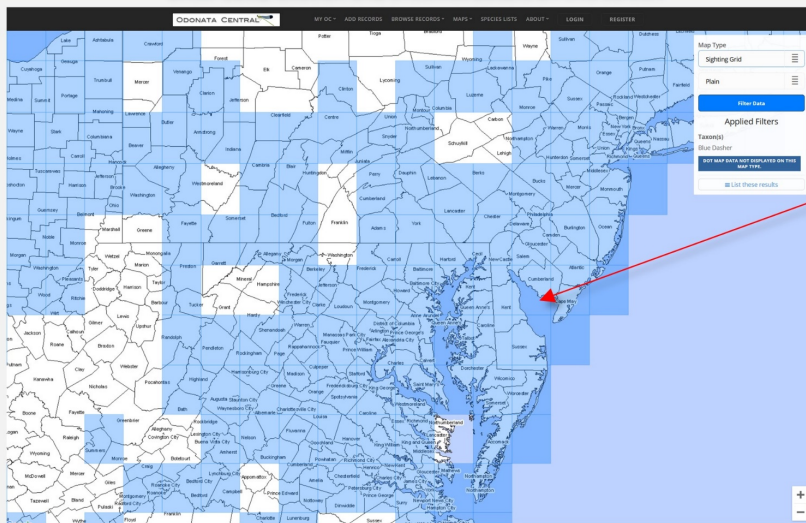
Blue squares have observations in them. To see these individual observations, you must zoom in.

This is how the map looks as you zoom in.

Circles are Odonata Central observations. You can click on them to see details.

If you have opted to map iNaturalist data, they are shown as triangles but are not clickable.

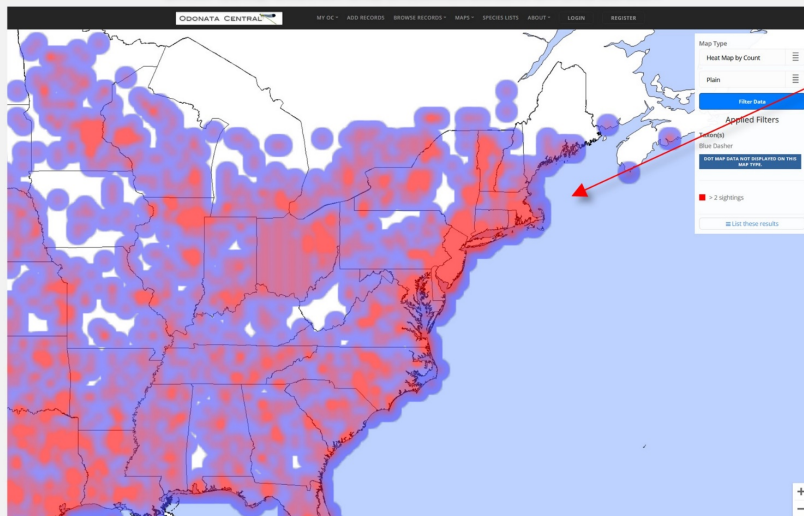
Sighting Grid Map



Sighting Grid map is identical to a Sighting Map, but the blue squares are show at all zoom levels and individual sightings are not shown.

This is provided if you want to see the grid when you are zoomed in rather than individual points.

Heat Maps



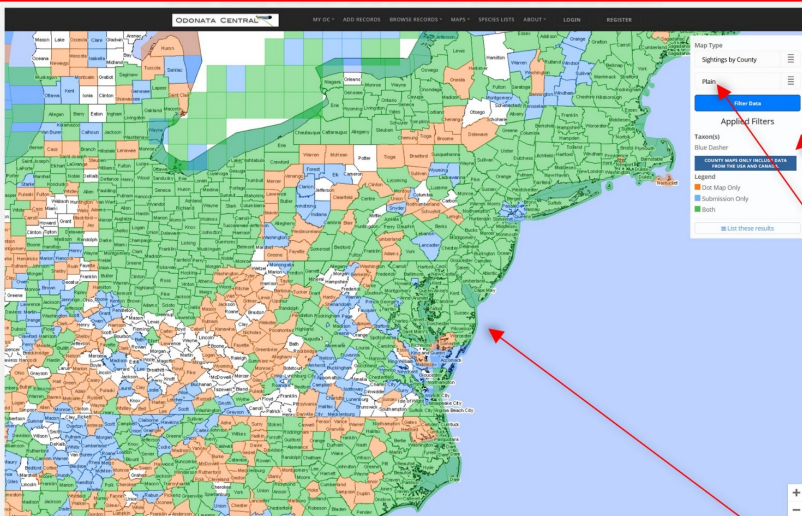
Both heat maps look the same.

In Heat Map by Count, the more red an area is, the more sightings of the species in that area there are.

Note that Heat Map by Count is probably a better reflection of geographical variation in effort by observers than it is of abundance.

A Heat Map by Percent attempts to partially correct for effort by indicating the percentage of days a species was reported out of the total number of days there were reports for that area.

County Maps



A Sighting by County map displays records by county. It only works in the USA (where shaded counties are displayed). Elsewhere, the shaded grid map is used.

County Maps are best used with the Plain Map type because county outlines and names are shown.

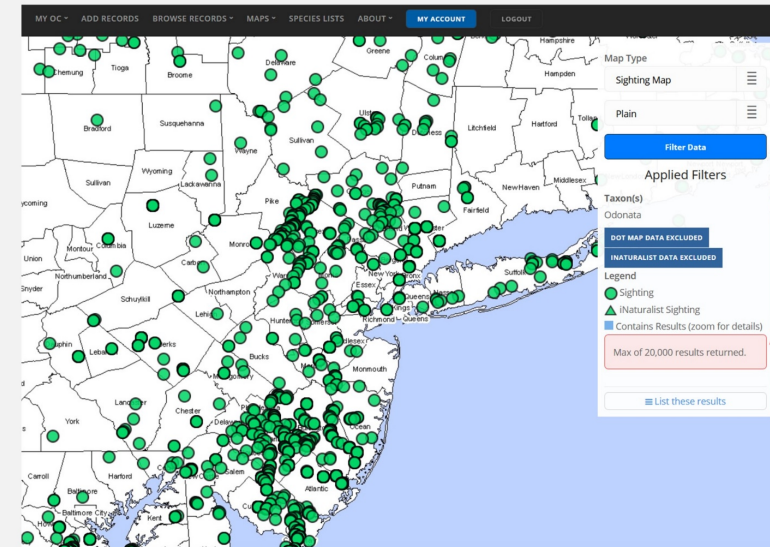
County Maps are the only way to see the Dot Map Records (see FAQ) which exist for Canada and the USA. In the USA, counties with only Dot Map Records are shown in Orange. Counties with only User Submitted records are shown in Blue. Counties with both are shown in Green. In Canada, the grid squares are color-coded the same way.

With the Sighting by County Map type only shaded counties are shown at all zoom levels.

If you select the County + Sightings Map type, individual sightings will be added as you zoom in.

The Exclude Dot Map Records switch in filters must be set to OFF to see Dot Map Records on this map.

Point Limit



Note that in certain circumstances with extremely wide filter settings, data are capped at 20,000 results. If you encounter this limit, you may need to set more restrictive filters to see all the data you want.



5. Species Lists

Overview

A powerful feature that lets you produce species lists for any combination of filter settings. Becomes especially powerful when combined with multiselect filters. Early and late flight dates are shown for every list produced.

A simple application would be look at a species list for your county.

Another application would be to look at list of your county and surrounding counties for the months of April and May.

The possibilities for producing lists are nearly endless because of the sophisticated filtering capabilities.

You can view all your personal lists by filtering for just your sightings or you can use the My Lists feature under the My OC tab in the main menu which is prefiltered to show just your sightings.

All lists are displayed alphabetically at each taxonomic level by scientific name. So, the suborders are arranged alphabetically, the families are alphabetical within each suborder, the genera are alphabetical within each family and finally the species are alphabetical within each genus.

Species Lists

The Species Lists tab allows you to produce lists of species for any filter setting.

This example is filtered to show a list of species seen in Texas in April, May and June, but you can set any settings you want.

Filtering with you as the observer with the “Exclude Submitted for Others” switch ON will show you personal species lists, but you can also access these under the My OC tab where these filters are preset for you.

Early and late dates in the calendar year are shown for each species within the filter parameters.

NOTE: Because these dates are based on calendar year, they make the most sense in north temperate zones. We are working on a more universally applicable definition of flight season.

| Species (227 total) | Early Date | Late Date | Map | Records |
|--|------------|-----------|-------------------------------------|-------------------------------------|
| Aeshnidae (Darner) | | | | |
| <i>Anax amazili</i> (Amazon Darner) | 10 Apr | 28 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Anax cancalor</i> (Blue-spotted Comet Darner) | 24 May | 23 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Anax junius</i> (Common Green Darner) | 01 Apr | 30 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Anax longipes</i> (Comet Darner) | 03 Apr | 27 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Anax walsinghami</i> (Giant Darner) | 14 May | 19 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Basiaeschna janata</i> (Springtime Darner) | 01 Apr | 03 May | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Boyeria vinosa</i> (Fawn Darner) | 27 May | 28 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Coryphaeschna adnexa</i> (Blue-faced Darner) | 14 May | 26 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Coryphaeschna aepora</i> (Coryphaeschna aepora) | 15 Apr | 15 Apr | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Coryphaeschna ingens</i> (Regal Darner) | 09 Apr | 24 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Epiaschna heros</i> (Swamp Darner) | 01 Apr | 30 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Gomphaeschna furcillata</i> (Harlequin Darner) | 01 Apr | 18 Apr | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Gynacantha mexicana</i> (Bar-sided Darner) | 26 May | 24 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Nasiaeschna pentacantha</i> (Cyrano Darner) | 08 Apr | 29 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Rhionaeschna dugesi</i> (Arroyo Darner) | 19 May | 12 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Rhionaeschna multicolor</i> (Blue-eyed Darner) | 09 Apr | 29 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Rhionaeschna psilus</i> (Turquoise-tipped Darner) | 06 Apr | 27 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Triacanthagyna septima</i> (Pale-green Darner) | 22 Jun | 22 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Cordulegasteridae (Spiketail) | | | | |
| <i>Cordulegaster maculata</i> (Twin-spotted Spiketail) | 01 Apr | 21 Apr | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Cordulegaster obliqua</i> (Arrowhead Spiketail) | 21 Apr | 24 Jun | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

6. Filter Settings

Overview:

- Filters can be set for Browsing, Mapping and Species Lists.
- Filter settings can be combined to show only the records you want.
- Multiselect filters allow you to select for more than one item at a time.
 - For example, you could search for records in three states with one filter setting by enter the names of the three state in the Location filter.
- Basic filters are shown initially, but you can access the advanced filters by clicking the More Filters button

Basic Filter menu appears when you click Filter Results button

Filter Results

Taxon

Location

Status

Record Type

High Quality Only ⓘ

Include Declined Records

OC#

User

Exclude Submitted for Others

Exclude Dot Map Project Results

more filters

Apply Filtering

This is the basic filter menu that opens first.

More filters are available on the Advanced menu that opens by clicking here (see below)

Once all your filter options are set, you apply them to your map or records list by clicking here

Multiselect fields allow for powerful searches

Filter Results ✕

Taxon

Common Green Darner ✕

Comet Darner ✕

Location

Massachusetts ✕ Rhode Island ✕

Connecticut ✕

Status

Record Type

Photo ✕ Specimen ✕

High Quality Only

Include Declined Records

OC#

User

Exclude Submitted for Others

Exclude Dot Map Project Results

[more filters](#)

Apply Filtering

Many fields are **multiselect** fields. For example you can select more than one taxon, location, etc. to search for.

In this example, we are searching for Photo and Specimen records of two darner species from three states.

Entering selections is discussed next.

Entering a taxon

Filter Results ✕

Taxon

comm

Common Green Darner

Anax junius

Common Emeralds

Cordulia sp.

Common Baskettail

Epitheca cynosura

Common Sanddragon

Progomphus obscurus

Common Whitetail

Plathemis lydia

Sympetrum commixtum

Sympetrum commixtum

Nososticta commutata

Nososticta commutata

Pseudagrion commoniae

Pseudagrion commoniae

Location

Record Type

User

Exclude Dot Map Project Results

[more filters](#)

Apply Filtering

1. To enter a taxon, begin typing the English or scientific name and a list of matching names will appear.

2. Once you see the name you want, click on it to enter it.

3. You can search for higher taxonomic levels. Selecting this name will search for all species in the genus Cordulia.

4. You can multiselect by typing another taxon name next to or below the first one you entered.

Entering selections into other multiselect fields

Filter Results [X]

Taxon [dropdown]

Location [dropdown]

Status [dropdown]

Record Type [dropdown]

High Quality Only ⓘ

Include Declined Records

OC# [text input]

User [dropdown]

Exclude Submitted for Others

Exclude Dot Map Project Results

[more filters](#)

Apply Filtering

These multiselect fields all work the same way as Taxon. Begin typing and pick from the list.

Location allows you to select a Continent, Country, State or Province or, in the US, a county. Any of these can be combined for a multiselect.

For Status and Record Type it may be easier to click the pull-down arrow first since there are a limited number of selections here.

Searching for a specific OC record number

Filter Results [X]

Taxon [dropdown]

Location [dropdown]

Status [dropdown]

Record Type [dropdown]

High Quality Only ⓘ

Include Declined Records

OC# [text input]

User [dropdown]

Exclude Submitted for Others

Exclude Dot Map Project Results

[more filters](#)

Apply Filtering

This field allows you to search for a specific OC record number. You must have the complete number, but you can type or paste it here. You can only search for one number at a time (not multiselect)

Be sure to clear all other fields or the search results could be empty.

Setting Switches

Filter Results ✕

Taxon

Location

Status

Record Type

High Quality Only ⓘ

Include Declined Records

OC#

User

Exclude Submitted for Others

Exclude Dot Map Project Results

[more filters](#)

Apply Filtering

By default this switch is OFF to include all data. Set to ON by clicking if you want to exclude certain low-quality data types that are harder to verify and that likely contain more errors. See FAQ for full explanation.

Declined records are excluded by default on all filters. Click to turn ON if you want to search for Declined Records

Click to turn ON if you want to exclude records submitted for others. You would most often do this when searching your own records to see only species you personally observed.

By default, this switch is ON to exclude Dot Map Records. These are mostly older (20th century) records that have no dates and are referenced only to county. They do fill in a lot of gaps in our knowledge, however. To see them in a list or on certain map types, click this switch OFF to turn off exclusion.

Maps Only Switch

Filter Results ✕

Select a taxon and click on "Apply Filtering" to get started

Taxon

Location

Status

Record Type

High Quality Only ⓘ

OC#

User

Exclude Dot Map Project Results

Exclude iNaturalist Results

[more filters](#)

Apply Filtering

This switch only appears when looking at maps. iNaturalist records imported periodically from the GBIF database can be viewed on maps if this switch is turned to ON.

More Filters

Observer ID Confidence

Certified Observers Only

Date Range

Month Range

Vetting Date

Life Stage

Vetter

Text to Search For

Apply Filtering

These additional filter settings appear when you click More Filters

Here you can specify a range of dates.

Here you can specify a season delimited by months. For example, search for all records in Apr-Jun for a species. If you do not specify a date, it will search all years, but you can restrict this by setting a Date Range.

Specify a life stage (Adult, Exuviae, Nymph)

See next page for additional settings on this page

More Filters

Observer ID Confidence

Certified Observers Only

Date Range

Month Range

Vetting Date

Life Stage

Vetter

Text to Search For

Search Fields:

Specimen Notes

Decision Notes

Location Name

Location Notes

Institution

Apply Filtering

To search for text, begin typing text in this field and the switches appear.

Set the fields you want to search. In this example, Specimen Notes and Decision Notes will be searched for the text you type after you hit enter.

See next page for additional settings on this page

Vetting Filters

Filter Results

Vetting Filters

Only Vetable Records

Only Pending Records

Only Outlier Records

These switches only appear to individuals authorized to vet records.

This switch shows all records in the geographical area you are authorized to vet records in.

This switch shows Pending records in all areas (subject to other filter settings).

This switch will show only Outlier records. Outlier records are Observed Only records by non-certified observers that were flagged as outside the normal range and season for that species. Veters may want to look at these and decline any obvious errors or check with observers for more details.

To begin vetting records, you should turn the first two switches ON to see Pending records in your area.

More Filters

Observer ID Confidence

Certified Observers Only

Date Range

Start Date End Date

Month Range

Start Month End Month

Vetting Date

Start Vetting Date End Vetting Date

Life Stage

Vetter

Text to Search For

Apply Filtering

These filter settings refer to vetting

You can search for records vetted by a certain person by entering their name or user ID here

You can also look for records vetted in a certain date range.

See the Vetting chapter for discussion of special filter switches for veters.

7. Vetting Process

Only vetters use the procedures described here to Accept or Decline submitted photo records. Records are assigned a status of Pending based on previous records of species in the area. See FAQ for details. Pending records are considered high priority for vetting and are placed in the vetting queue for vetters to examine. However, vetters can vet any records if they wish.

Overview for Veters:

You must be logged in to vet records.

The best way to see records needing vetting is to select “Browse Records” from the top menu and then “Vet Records” from the submenu.

From the list of records displayed, click the “Details” button of the first record you want to vet.

Once the first record is displayed, you can:

- See enlarged versions of the submitted photos
- Click the “four corners” icon on the map to view the map full screen
- Change the species name by clicking the pencil icon next to the name
- Enter Decision notes

One-click vetting:

Once you have examined the record and changed the species name or entered decision notes if necessary, you click either Accept or Decline on the top menu. This saves the record and your decisions AND automatically advances to the next record in the stack.

NOTE: You MUST enter Decision Notes for all Declined records and you will get a warning if you hit Decline with that box empty. All decision notes should be signed by the vetter to facilitate other notes being added by other vetters.

Accepted and Declined records are locked to editing. You MUST change the status of record to Pending if you want to make changes yourself or if you want to allow the submitter to make changes.

If there is an error in location or date you should make every effort to have the submitter change this since it affects the entire checklist. If this fails, contact us using the Contact Us link in the footer.



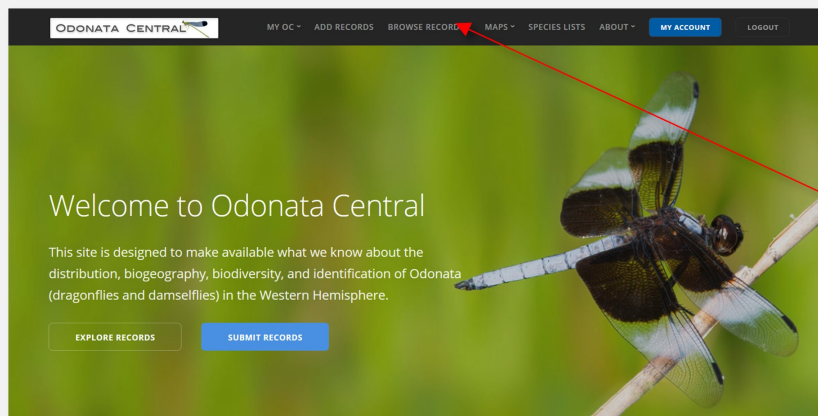
Vetting Records

This section is to help vetters. Other users may want to scan it to understand the vetting process better.

Vetters are regional experts that have been chosen to confirm user identifications.

Odonata Central 2020 features efficient vetting. Examining photos, changing species names and moving through the queue of records to be vetted can all be done quickly and efficiently. Odonata Central uses a “one-click” vetting process that is explained below.

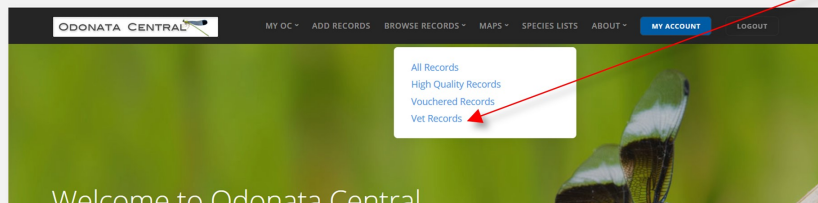
Vetting Records



You need to be logged in to vet records

1. Begin by clicking BROWSE RECORDS

2. Select Vet Records from the submenu.
(This option only appears to vetters).



This opens a list of Pending Records in your vetting region sorted by observation date.

Main list records screen for vetters

Odonata Records

Applied Filters

VETTABLE RECORDS Life Stage(s) Adult DOT MAP DATA EXCLUDED

PENDING RECORDS

Map these results Filter Results

1 - 50 of 218 record(s) found

| OC# | Image | Taxon | User | Location | Observed | Status |
|--------|-------|---|------------|---|------------|---------------------------------|
| 852379 | | Arrowhead Spiketail <i>Cordulegaster obliqua</i> | Mike Moore | Cape May County, New Jersey, United States | 10/25/2019 | Pending details |

1. Shows filters that have been set. Dot Map Data are excluded by default. Vetable records are those in your region. This list is initially restricted to Pending Records.

2. Changes the filter settings. All standard filter settings are available but some special filters for vetters are discussed below.

3. Click on column heading to sort by that column. Initially sorted by date observed, newest first.

4. Click details to begin vetting records

You may want to change the sort order by clicking on the OC# column and sorting from smallest to largest. This sorts your records with those waiting the longest for vetting first, since OC# is assigned sequentially as records are submitted.

Details screen – Examining and changing the record

Odonata Central

Accept Pending Decline Delete

Blue-spotted Comet Darner - *Anax concolor* ✓ OC#481966

Current Status Pending
Life Stage Adult
Record Type Photo
ID Confidence High

Decision Notes

Vetters: Please type your name after all decision note entries and add new signed notes after previous ones if necessary.

Map Satellite Philadelphia New York
MARYLAND NEW JERSEY
Washington DELAWARE
Richmond

Specimen Notes: Observed on: 08/01/2019
Submitted by: Dummy_RJ
on 08/23/2019

Cape May
Cape May County, New Jersey, United States
38.991571, -74.916084
Location Description

This is the vetting menu bar explained below.

Before using the vetting menu bar, on this screen you can:

1. Use this pencil icon to change the species name if necessary. Works great for records submitted as "Unknown."

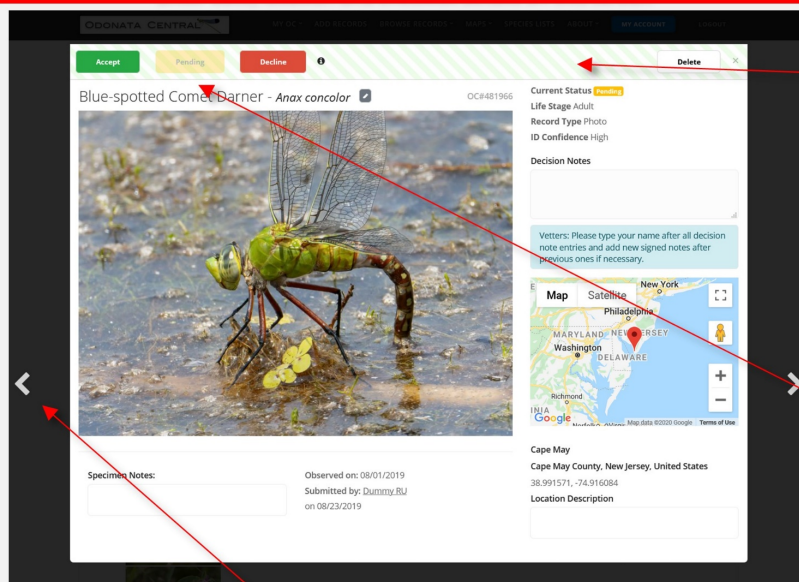
2. Enter Decision Notes (required BEFORE declining a record)

3. Click on the "four corners" icon to enlarge the map.

4. Click on the image to view a larger version, as when browsing records normally.

The two scroll arrows on either side allow you to move forward and backward through your stack of selected records.

Details screen – One Click Vetting



Using the vetting menu bar.

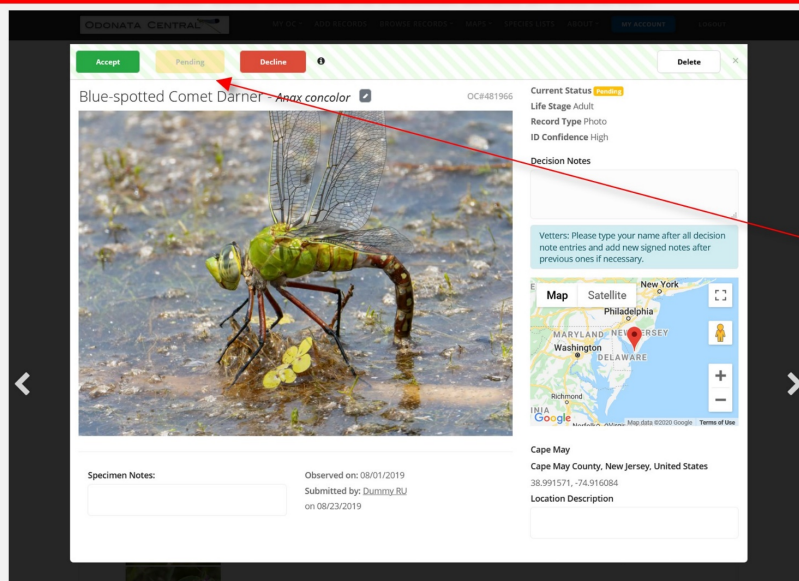
“One Click Vetting” – If you click Accept or Decline, the status is changed, the record is saved and the stack automatically advances to the next record.

Each Accepted or Declined record takes one click to change status, save and advance to the next record.

Remember, hitting Decline saves the record so you must enter required Decision Notes first. If you forget, you cannot Decline the record and a reminder will pop up to fill in Decision Notes.

Use this back arrow if you need to go back to a record you just Accepted or Declined.

Details screen – editing a vetted record



Editing a vetted a record:

Vetted records (Accepted or Declined) are locked to editing by vetters and submitters so the data the decision is based on are not changed.

If you want to make a record editable, change its status back to pending and change the status to Accepted or Declined after the edits are made.

Details screen – Ending a vetting session

Accept Pending Decline Delete

Blue-spotted Comet Darner - *Anax concolor* OCF481966

Current Status Pending
Life Stage Adult
Record Type Photo
ID Confidence High

Decision Notes

Vetters: Please type your name after all decision note entries and add new signed notes after previous ones if necessary.

Map Satellite New York Philadelphia Washington DELAWARE

Cape May
Cape May County, New Jersey, United States
38.991571, -74.916084
Location Description

Specimen Notes: Observed on: 08/01/2019
Submitted by: Dummy.RJ on 08/23/2019

When you are done vetting, just hit this small x to close the Details screen and the stack of records.

Vetting Filters

Filter Results

Vetting Filters

Only Vetable Records

Only Pending Records

Only Outlier Records

Taxon Location

Status Record Type

High Quality Only

OC# User

Exclude Dot Map Project Results

Observer ID Confidence Vetter

Certified Observers Only

Date Range

Start Date End Date

Month Range

Start End Month

Vetting Date

Start Vetting Date End Vetting Date

Life Stage Text to Search For

Apply Filtering

Vetters have a special set of filter switches to help them in the vetting process.

1. Turning this switch ON filters the records to show you only those records in your vetting area.

2. Turning this switch ON limits the output to Pending records. It is the same as setting the filter to Status = Pending in the regular filters.

Turning ON both switch 1 and 2 produces the same result as selecting Vet Records from the Browse Records tab.

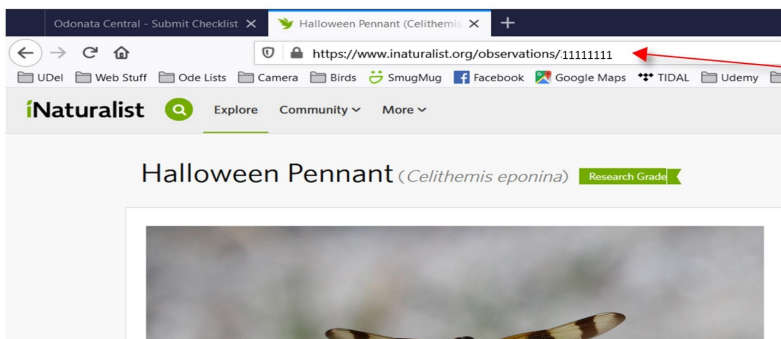
3. This switch shows only Outlier records. Turning switch 1 and 3 to ON will let you look at Outlier records you can vet. These are Observed Only records of species not recorded in the area. These switches allow you to easily look through them and Decline obvious errors if you wish.

8. Importing iNaturalist Records

iNaturalist is another citizen science database that accepts Odonata records. iNaturalist does not have the powerful filtering, mapping, species lists and mapping functions of Odonata Central. In addition, iNaturalist records can be vetted by anyone but Odonata Central uses only expert vetters.

If you like to use iNaturalist, but want your records also in Odonata Central to take advantage of its features, you can easily cut and paste your iNaturalist records into Odonata Central. Directions follow:

Go to the iNaturalist Record you want to import

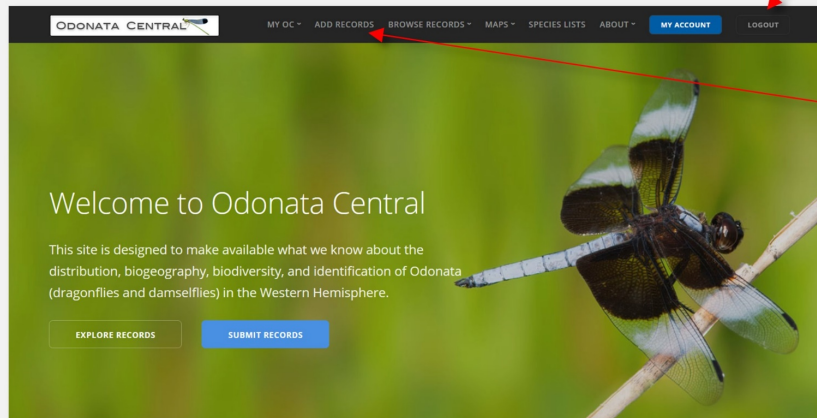


Select and Copy the url of the iNaturalist record including the record number

Review the **Entering Records** chapter of this guide, if necessary, to understand how records are added to Odonata Central directly.

Continued on next page ...

Begin by clicking ADD RECORDS from the top menu



You need to register and be logged in to be able to enter records

LOGOUT and MY ACCOUNT buttons indicate you are logged in

Begin by clicking ADD RECORDS

Begin import process

Submit a Record Checklist

Submitted By: [REDACTED] [Import from iNaturalist](#)

Observation Date
 Note: to select historical date, click the date selector header (once to select month, twice to select year).

Location
 Choose from favorite locations:
 ▼

OR

Choose location from a map:

Are you submitting a complete checklist of all the species you could identify?

I am submitting for another observer

make this checklist Private 🔒

[CLICK TO BEGIN ENTERING RECORDS](#)

Leave date and location empty. These will be imported from the iNaturalist record.

1. Check this box if you are submitting a complete checklist. Usually this will involve adding other sightings to the checklist besides the iNaturalist records. Complete checklists are encouraged.

2. Check if you are importing an observation for another observer. A box will appear where you can optionally type the observers name if known. A link to the iNaturalist record will be added to Specimen Notes so the original observer will always get credit for the sighting.

4. AFTER setting the three checkboxes as desired, click here to import a record from iNaturalist

3. Check if you wish to make the checklist private (not encouraged).

Paste iNaturalist URL into dialog box

Submit a Record Checklist

Submitted By [REDACTED] Import from iNaturalist

Observation Date
 Note: to select historical date, click the date selector header (once to select month, twice to select year).

Location
 Choose from favorite

Choose location from

Are you submitting

make this checklist Private i

Import from iNaturalist

CLICK TO BEGIN ENTERING RECORDS

1. This dialog box appears

2. Paste the iNaturalist URL you copied here

3. Click this button

Verify location and date information

Submit a Record Checklist

Submitted By [REDACTED]

Please review the location information imported from iNaturalist below and edit it if necessary. After adding the location you will be asked to review the record on the next screen.
NOTE: The location of many records is obscured by iNaturalist and the pin location may only be approximate. Please drop the pin at the accurate location.

Observation Date
 Note: to select historical date, click the date selector header (once to select month, twice to select year).

Location
Add a Location

Search:

Map Satellite

Location Name:
 Add to Favorites

Location Description:
 Private Property

Latitude:

Longitude:

Add Location Cancel

This screen shows the date and location information extracted from the iNaturalist record. Review and edit any information if necessary.

1. Check the location of the pin on the map very carefully. Many iNaturalist records have only approximate locations. Click to reposition the pin to the exact location you want to use for the checklist.

2. You probably will want to edit these fields to give the location a name and a better description.

3. Click button to enter location and add the iNaturalist record to an OC Checklist, which opens next

OC Checklist with iNaturalist record entered

An Odonata Central checklist is created with the iNaturalist record entered including species name and any photos

1. Confirm, add or edit details to the record, as necessary.

2. "X" in the count column simply means observed. Please add a count or estimate if you have one.

3. Additional iNaturalist records from the same date and location can be imported to this checklist by clicking this button

4. Additional observations can be added to the iNaturalist records as desired. For example, if you observed other species you did not photograph or submit to iNaturalist.

Save your checklist

An example of a completed checklist.

Once all observations for this date and location are entered on the checklist, click to Save and Exit.

Checklists and Records can be edited by accessing them under the My OC tab in the main menu.